

Docket No. VISX0011U/US

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION OF: William B. Telfair et al.

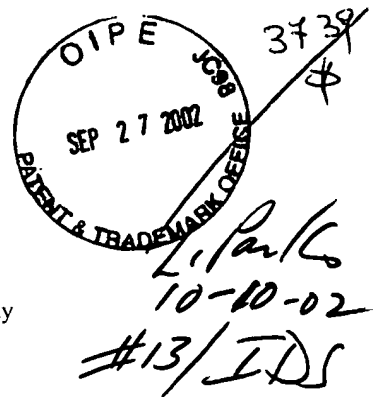
INT APP. NO: 09/307,988

FILED: 3739

FOR: Short Pulse Mid-Infrared Parametric Generation for Surgery

GAU: 3739

EXAMINER: David Shay



INFORMATION DISCLOSURE STATEMENT UNDER 37 CFR 1.97

ASSISTANT COMMISSIONER FOR PATENTS  
WASHINGTON, D.C. 20231

SIR:

Applicant(s) wish to disclose the following information.

REFERENCES

- ☒ The applicant(s) wish to make of record the references listed on the attached PTO-1449. Copies of the listed references cited on the face of Patent No. 5,782,822, which issued from an application to which this application claims priority, or those cited in this application are indicated with a parenthetical stating "already of record." Copies of these references are not submitted. Copies of all other references are attached.
- ☒ A check is attached in the amount required under 37 CFR §1.17(p).

RELATED CASES

- ☐ Attached is a list of applicant's pending application(s) or issued patent(s) which may be related to the present application. A copy of the patent(s) is attached along with PTO 1449.
- ☐ A check is attached in the amount required under 37 CFR §1.17(p).

CERTIFICATION

- ☐ Each item of information contained in this information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this statement.
- ☐ No item of information contained in this information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application or, to the knowledge of the undersigned, having made reasonable inquiry, was known to any individual designated in 37 CFR §1.56(c) more than three months prior to the filing of this statement.

PETITION

- ☐ Applicant(s) hereby request consideration of the attached information. A check is attached in the amount of the Petition fee required under 37 CFR §1.17(i)(1).

DEPOSIT ACCOUNT

- ☒ Please charge any additional fees for the papers being filed herewith and for which no check is enclosed herewith, or credit any overpayment to deposit account number 50-2106. A duplicate copy of this sheet is enclosed.



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PATENT TRADEMARK OFFICE

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Respectfully submitted,

Richard A. Neifeld  
Registration No. 35,299

9/27/02

Form PTO 1449  
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## LIST OF REFERENCES CITED BY APPLICANT

APPLICANT

William B. Telfair et al.

FILING DATE

5-10-99

GROUP

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## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE
	A	5742634	4-98	Rieger et al.	372	25	
	B	5291505	3-94	Nielson	372	38	
	C	5593606	1-97	Owen et al.	219	121.71	
	D	5640412	6-97	Reed	372	100	
	E	5598425	1-97	Jain et al.	372	18	
	F	5001716	5-91	Johnson et al.	372	10	
	G	5611946	3-97	Leong et al.	219	121.66	
	H	5614114	3-97	Owen	219	121.66	
	I	5465154	11-95	Levy	365	382	
	J	5644585	7-1-97	Mitchell, et al.	372	25	
	K	5642370	6-24-97	Mitchell, et al.	372	25	
	L	5130995	7-14-92	Grossman, et al.	372	13	
	M	3564450	2-26-71	Immarco, et al.	331	94.5	
	N	5098426	3-24-92	Sklar et al.	606	5	
	O	5170193	12-8-92	McMillian et al.	351	212	
	P	5062702	11-5-91	Bille	351	212	
	Q	5620436	4-15-97	Lang et al.	606	4	
	R	5643249	7-1-97	Amano	606	4	
	S	5300062	4-5-94	Ueno	606	4	
	T	5632742	5-27-97	Frey et al.	606	12	
	U	5556417	9-17-96	Sher	600	236	
	V	5410376	4-25-95	Cornsweet, et al.	351	210	
	W	5345281	9-6-94	Taboada, et al.	351	210	
	X	5231674	7-27-93	Cleveland, et al.	382	6	
	Y	4443075	4-17-84	Crane	351	209	
	Z	4287410	9-1-81	Crane et al.	250	201	
	AA	5520679	5-96	Lin	606	5	(already of record)
	AB	5474548	12-95	Knopp et al.	606	4	(already of record)
	AC	5360424	11-94	Klopotek	606	4	(already of record)
	AD	5349590	9-94	Amirkhanian	372	6	(already of record)
	AE	5350374	3-93	Smith	606	5	(already of record)
	AF	5108388	4-92	Trokel	606	5	(already of record)
	AG	5102409	4-92	Balgorod	606	5	(already of record)
	AH	4968130	11-90	Hideshima, et al.	351	221	(already of record)
	AI	4911711	3-90	Telfair, et al.	606	5	(already of record)

Examiner

Date Considered

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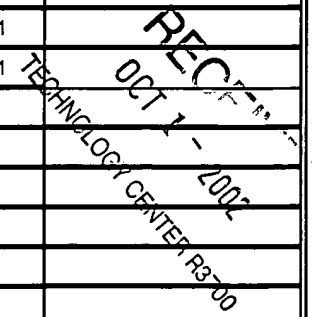
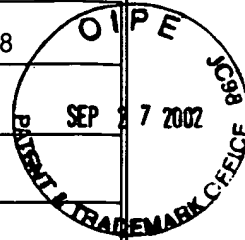
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EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE
	AJ	4907586	3-90	Bille et al.	606	5	(already of record)
	AK	4896015	1-90	Taboada, et al.	219	121.78	(already of record)
	AL	4720189	1-88	Heynen et al.	351	210	(already of record)
	AM	4665913	5-87	L'Esperance	128	303.1	(already of record)
	AN	4669466	6-87	L'Esperance	128	303.1	(already of record)
	AO	4461294	7-84	Baron	128	303.1	(already of record)
	AP	4169663	10-79	Murr	351	7	(already of record)
	AQ	4846154	7-89	MacAnally et al.	128	6	
	AR	4332470	6-82	Chamran	356	325	
	AS	5645550	7-97	Hohla	606	108	
	AT	5309277	5-94	Deck	359	387	
	AU	5423798	6-95	Crow	606	4	
	AV	4856891	8-89	Pflibsen	351	210	
	AW	4438765	3-84	Wilinsky	128	303.1	
	AX	4330212	5-82	Miller	356	354	
	AY	4838682	6-89	Portnoy	351	212	
	AZ	5670068	9-97	Kurimaya et al.	219	121.68	
	AAA	4732148	3-88	L'Esperance, Jr.	128	303.1	(already of record)
	AAB	3330182	7-67	Gerber et al.	88	24	
	AAC	4355871	10-82	Nevyas et al.	351	13	
	AAD	4370540	1-83	Davis et al.	219	121LM	
	AAE	4538991	9-85	Simpson et al.	434	12	
	AAF	4648400	3-87	Schneider et al.	128	303.1	
	AAG	4724522	2-88	Belgorod	364	415	
	AAH	4729372	3-88	L'Esperance, Jr.	128	303.1	
	AAI	4770172	9-88	L'Esperance, Jr.	128	303.1	
	AAJ	4849175	6-89	Peyman	128	303.1	
	AAK	4903695	2-90	Warner et al.	606	4	
	AAL	5144630	9-92	Lin	372	22	
	AAM	5162934	11-92	Munnerlyn	606	5	
	AAN	5246436	9-93	Rowe	606	13	
	AAO	5490849	2-96	Smith	606	5	
	AAP	5492135	2-96	DeVore et al.	128	898	

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## U.S. PATENT DOCUMENTS

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	AAA	5496339	3-96	Koepnick	606	166	
	AAR	5500697	3-96	Fujieda	351	212	
	AAS	5505722	4-96	Kilmer et al.	606	1	
	AAT	5505723	4-96	Muller	606	5	
	AAU	5505724	4-96	Steinert	606	5	
	AAV	5507740	4-96	O'Donnell, Jr.	606	4	
	AAW	5507741	4-96	L'Esperance, Jr.	606	5	
	AAX	5512965	4-96	Snook	351	205	
	AAY	5512966	4-96	Snook	351	205	
	AAZ	5514124	5-96	Alpins	606	4	
	ABA	5521657	5-96	Klopotek	351	212	
	ABB	5522813	6-96	Trelles	606	2	
	ABC	5525349	6-96	Robertson et al.	424	427	
	ABD	5527350	6-96	Grove et al.	607	89	
	ABE	5529076	6-96	Schachar	128	898	
	ABF	5532769	7-96	Miwa et al.	351	205	
	ABG	5532873	7-96	Dixon	359	388	
	ABH	5782822	7-98	Telfair et al.	606	5	(already of record)
	ABI	5849006	12-98	Frey et al.	606	5	
	ABJ	5865832	2-99	Knopp et al.	606	10	
	ABK	6090102	7-00	Telfair et al.	606	10	
	ADP	5742626	4-98	Mead et al.	372	22	(already of record)

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION YES NO
	ABL	WO 94 18883 A	9-94	PCT	
	ABM	1961883 A	7-70	Germany	
	ABN	0765648	4-97	EP	
	ABO	0280414	8-88	EP	
	ABP	WO 97 40405 A	10-97	PCT	
	ABQ	4442071A	6-95	Germany	
	ABR	WO 98 22016 A	5-98	PCT	
	ABS	EP0770370	5-2-97	EP	

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LIST OF REFERENCES CITED BY APPLICANT				APPLICANT William B. Telfair			
				FILING DATE 5-10-99		GROUP 3739	
<b>FOREIGN PATENT DOCUMENTS CONT'D</b>							
	ABT	WO 96/33538	10-24-96	PCT			
	ABU	0602756A1	6-94	EPO	(already of record)		
	ABV	4232915A1	4-94	Germany	(already of record)		
	ABW	94/18883	2-94	PCT	(already of record)		
	ABX	93/14817	8-93	PCT	(already of record)		
	ABY	95/27453A	10-95	PCT	(already of record)		
	ABZ	2622426A	10-88	France	(already of record)		
	ACA	0279589A	8-88	EPO	(already of record)		
	ACB	3540763 A1	5-87	Germany	(already of record)		
	ACC	DE 19615246 A	10-23-97	Germany			
	ACD	WO 95 28989	11-95	PCT			
<b>OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, etc.)</b>							
	ACE	Dingus, R.S., et al., "Grunseisen-stress induced ablation of biological tissue," SPIE Vol. 1427 Laser Tissue Interaction II (1991). (already of record)					
	ACF	Frenz, et al., "Comparison of the Effects of Absorption Coefficient and Pulse Duration of 2.12- $\mu$ m and 2.79- $\mu$ m Radiation on Laser Ablation of Tissue," IEEE Journal of Quantum Electronics, Vol. 32, No. 12, December 1996, pp. 2025 - 2036.					
	ACG	Pollnau, et al., "Investigation of Diode-pumped 2.8- $\mu$ m Laser Performance in Er:BaY <sub>2</sub> F <sub>8</sub> ," Optics Letters, Vol. 21, No. 1, January 1, 1996, pp. 48-50.					
	ACH	Konz, et al., "Active and Passive Q-Switching of a 2.79 $\mu$ m Er:Cr:YSGG Laser," Optics Communications 103, December 1, 1993, No. 5/6, pp. 398 - 404.					
	ACI	International Search Report, PCT/US98/01386, May 8, 1998, 3 pages					
	ACJ	"Handbook of Optics," Vol. 1, 2d. Ed. pp. 24.33 - 24.37, 24.52-24.53 and cover page.					
	ACK	Bahill, et al., "Variability and Development of Normative Data Base for Saccadic Eye Movements", Invest. Ophthalm. Vis. Sci. 21, 116, 1981.					
	ACL	Carpenter, "Eye Movements," Visual and Visual Dysfunction, Volume 8, 1991, pp. 71-137					
	ACM	Adler's "Physiology of the Eye," Clinical Application, 8th Ed., 1987, pp. 141-146, 159, 161-162, 436-438.					
	ACN	Ren et al., "Axicon: a new laser beam delivery system for corneal surgery," Journal of Quantum Electronics, vol. 26, no. 12, December 1990, New York, pp 2305-2308. (already of record)					
	ACO	European Patent Office, "European Search Report," 14 May 1997, pp. 1-2 (already of record)					
	ACP	European Patent Office, "Annex to the European Search Report," 14 May 1997, pp. 1-2 (already of record)					
	ACQ	Bende, T., Kriegerowsku, M., and Seiler, T., "Photoablation in Different Occular Tissues Performed with an Erbium: YAG laser", Lasers in Ophthalmology, 2, 263-269, (1989). (already of record)					
	ACR	Seiler, Theo., et al., "The potential of an infrared hydrogen fluoride (HF) laser (3.0 $\mu$ m) for corneal surgery," Lasers in Ophthalmology, Vol. 1, No. 1 pp. 49-60 (1986).					
Examiner					Date Considered		
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OTHER REFERENCES CONT'D (Including Author, Title, Date, Pertinent Pages, etc.)							
	ACS	Stern, David, et al., "Infrared Laser Surgery of the Cornea; Studies with a Raman-shifted neodymium; YAG Laser at 2.80 and 2.93 $\mu\text{m}$ ," Ophthalmology, October 1988, Volume 95, Number 10. (already of record)					
	ACT	Abel, T., Hirsch, J. and Harrington, J.A., "Hollow Glass Waveguides for Broadband Infrared Transmission," Optics Letters 19, 1034-1036, (1994). (already of record)					
	ACU	Jacques, S.L., "Laser-Tissue Interactions: Photochemical, Photothermal, and Photomechanical," Lasers in General Surgery, 72(3), 531-558, 1992. (already of record)					
	ACV	Jean, B., M.D., Ph.D, Kriegerowski, M., M.D., Matallana, M. Bende, T., Ph.D., "Correction of Myopia with Er: YAG Laser Fundamental Mode Photorefractive Keratectomy," Journal of Refractive Surgery, Volume 11, (1995). (already of record)					
	ACW	Lian, J., Wang, K., Lin, J.T., "Effects of Er: YAG laser of different pulse widths on rabbit corneas," SPIE, Vol. 2393 160-166 (1995). (already of record)					
	ACX	Lin, J.T., "Mini-Excimer Laser Corneal Reshaping Using a Scanning Device," SPIE Proceedings, Vol. 2131, Medical Lasers & Systems III, (1994). (already of record)					
	ACY	Munnerlynn, C.R., Koons, S.J. and Marshall, J., "Photorefractive Keratectomy: a technique for laser refractive surgery", J Cataract Refract. Surg., 14(1): 46-52, (1988). (already of record)					
	ACZ	Pettit, G.H., Ediger, M.N., and Weiblinger, R.P., "Excimer laser ablation of the cornea," Optical Engineering, 34, 661-667, 1995. (already of record)					
	ADA	Peyman, G.A., Badaro, R.M., and Khoobehi, B., "Corneal ablation in rabbits using an infrared (2.9 $\mu\text{m}$ ) erbium-YAB laser," Ophthalmology, 96, 1160-1170, (1989). (already of record)					
	ADB	Ren, Q., Keates, R.H., Hill, R.A. and Berns, M.W., "Laser Refractive Surgery: a review and current status," Optical Engineering, 34, 642-660 (1995). (already of record)					
	ADC	Seiler, T., and Wollensak, J., "Fundamental mode photablation of the cornea for myopic correction," Lasers and Light in Ophthalmology, 5, 4, 1992-203 (1993). (already of record)					
	ADD	Walsh, J.T., Flotte, T.J., and Deutsch, T.F., "Er-YAG laser ablation of tissue: effect of pulse duration and tissue type on thermal damage," Lasers Surgical Medicine, 9, 314-326, (1989). (already of record)					
	ADE	Wang, Kang-sun, Li, Qui and Lan, Zhi-lin, "Comparison of Er:YAG and Excimer laser corneal ablation in rabbits," Lasers in Ophthalmology, 6, 60-75 (1994). (already of record)					
	ADF	Webb, R.H., Penny, C.M., Thompson, K.P., "Measurement of Ocular Local Wavefront Distortion with a Spatially Resolved Refractometer," Applied Optics, 31, 19, 3678-3686 (1992). (already of record)					
	ADG	Product Brochure, Orbscan, "A Pan Corneal Slit Topography & Pachymetry System," Orbleck, Salt Lake City, UT, 84115 *(undated) (already of record)					
	ADH	Product Brochure, Visx, "Reshaping Vision," Twenty/Twenty Excimer Laser System, Alcon International, Alcon Laboratories Inc. Fort Worth, TX 76134 (1992). (already of record)					
	ADI	Derwent Abstract for DE 35 40 763 (already of record)					
	ADJ	Derwent Abstract for DE 42 32 915 (already of record)					
	ADK	Ren Q., Simon, G. Parel, J.M., "Ultraviolet Solid-state Laser (213nm) Photo Refractive Keratectomy", Ophthalmology 100, 12, 1828-1834 (1993). (already of record)					
	ADL	Ren, Q. et al., "Mid-Infrared Laser Ablation of the Cornea: A comparative Study", Lasers in Surgery and Medicine, 12: 274-281, (1992). (already of record)					
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